

AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended): An apparatus for recording operation information ~~in association~~synchronously with video or music reproduced by a reproduction device, said apparatus comprising:

a timer that generates a first time code;

an operator section that ~~includes~~detects operation of one or more operators ~~operator controls~~ and ~~arranged to generate~~generates operation data by ~~detecting an operational state of each of said operators~~indicative of the detected operation of each of said operator controls;

a storage section;

a control section that causes said storage section to store the operation data of each of said ~~operators~~operator controls, generated by said operator section, along with said first time code generated by said timer as time information of the operation data;

a reception section that receives a second time code ~~given by the reproduction device, in relation to~~of the video or music reproduced by the reproduction device, said second time code being of lower resolution than said first time code; and

a time code correction section that ~~corrects said first time code, generated by said timer, on the basis of said~~controls said timer, according to said second time code received by said reception section, to generate said first time code corrected on the basis of said second time code,

wherein said time code correction section is capable of correcting said first time code in correspondence with any one of a plurality of types of second time code of different resolution, and

wherein the resolution of said first time code is a common multiple of respective resolution of said plurality of types of second time code.

Claim 2 (canceled).

Claim 3 (currently amended): An apparatus as claimed in claim 1 which further comprises:

- a designation section that designates a type of second time code to be received by said reception means, from among a plurality of types of second time code of different resolution;
- a retention section that retains a second time code of the type, designated by said designation section, as a current time code;
- an updating section that converts said first time code, generated by said timer, into a second third time code having the resolution of the designated type in accordance with the designated type and updating-updates the current time code, retained by said retention section, with the second third time code having the resolution of the designated type; and
- a display section that displays the current time code retained by said retention section.

Claim 4 (original): An apparatus as claimed in claim 1 wherein said time code correction section converts a value of said second time code into a value having the resolution of said first time code, in accordance with a ratio between the resolution of said first time code and the resolution of said second time code, and then sets the converted value in said timer as said first time code.

Claim 5 (currently amended): An apparatus for reproducing operation information in association synchronously with video or music reproduced by a reproduction device, said apparatus comprising:

a timer that generates a first time code;

a storage section that stores operation data, indicative of an ~~operational state to be taken by operation of~~ at least one operator control, along with time information indicative of a reproducing time timing when the operation data is to be reproduced;

a control section that reads out, from said storage section, the operation data for which the reproducing time timing has arrived, in accordance with a progression of said first time code generated by said timer, and outputs the operation data;

a reception section that receives a second time code ~~given by the reproduction device~~, in relation to the video or music reproduced by the reproduction device, said second time code being of lower resolution than said first time code; and

a time code correction section that ~~corrects said first time code, generated by said timer, on the basis of~~ controls said timer, according to said second time code received by said reception section, to ~~thereby provide a corrected first time code~~ generates said first time code corrected on the basis of said second time code;

wherein said control section reads out, from said storage section, each operation data for ~~which the reproducing time has arrived~~ when the time information of the operation data coincide with the corrected first time code, in accordance with a progression of the corrected first time code so that the operation data is reproduced from said storage section in association synchronously with the video or music reproduced by the reproduction device,

wherein said time code correction section is capable of correcting said first time code in correspondence with any one of a plurality of types of second time code of different resolution, and wherein the resolution of said first time code is a common multiple of respective resolution of said plurality of types of second time code.

Claim 6 (currently amended): An apparatus as claimed in claim 5 which further comprises an operator section that includes one or more operator controls, a position of each of said operator controls ~~operators, an operational state of each of said operators~~ being capable of being automatically set, and

wherein, when given operation data is read out from said storage section by said control section, a corresponding one of said ~~operators~~ operator controls in said operator section is automatically set to an operational state ~~a position~~ in accordance with the read-out operation data.

Claim 7 (canceled)

Claim 8 (currently amended): An apparatus as claimed in claim 5 which further comprises:

- a designation section that designates a type of second time code to be received by said reception means, from among a plurality of types of second time code of different resolution;
- a retention section that retains a second-third time code of the type, designated by said designation section, as a current time code;
- an updating section that converts said first time code, generated by said timer, into a second-third time code having the resolution of the designated type in accordance with the designated type and updating-updates the current time code, retained by said retention section, with the second-third time code having the resolution of the designated type; and
- a display section that displays the current time code retained by said retention section.

Claim 9 (original): An apparatus as claimed in claim 5 wherein said time code correction section converts a value of said second time code into a value having the resolution of said first time code, in accordance with a ratio between the resolution of said first time code and the resolution of said second time code, and then sets the converted value in said timer as said first time code.

Claim 10 (currently amended): A time code generating apparatus comprising:

a timer section that generates a first time code in accordance with passage of time;

a designation section that designates a type of time code from among a plurality of types of time code of different resolution;

a retention section that retains, as a current time code, a time code varying over time with a resolution of the type designated by said designation section; and

an updating section that converts said first time code, generated by said timer section, into a second time code having the resolution of the designated type in accordance with the designated type and updating-updates the current time code, retained by said retention section, with the second time code having the resolution of the designated type,

wherein the current time code retained by said retention section is outputted, and

wherein a time resolution of said first time code is a common multiple of respective time resolution of said plurality of types of time code.

Claim 11 (canceled)

Claim 12 (original): A time code generating apparatus as claimed in claim 10 which further comprises a display section that displays the current time code outputted by said retention section.

Claim 13 (currently amended): A method for recording operation information, indicative of operation on an operator unit ~~including one or more operators~~detecting operations of one or more operator controls, into a memory ~~in association~~synchronously with video or music reproduced by a reproduction device, said method comprising:

a step of generating a first time code sequentially varying over time;

a step of generating operation data ~~by detecting an operational state of each of said operators on said operator unit~~ indicative of the detected operation of each of said operator controls on said operator unit;

a step of, in response to generation of the operation data by said step of generating operation data, causing said memory to store the generated operation data along with said first time code as time information of the operation data;

a step of receiving a second time code ~~given by the reproduction device, in relation to~~of the video or music reproduced by the reproduction device, said second time code being of lower resolution than said first time code; and

a step of ~~correcting a current value of said first time code, generated by said step of generating a first time code, on the basis of~~controlling generation of said first time code by said step of generating a first time code, according to said second time code received by said step of receiving, to generate said first time code corrected on the basis of said second time code,

wherein said step of controlling generation of said first time code corrects said first time code in correspondence with any one of a plurality of types of second time code of different resolution, and

wherein the resolution of said first time code is a common multiple of respective resolution of said plurality of types of second time code.

Claim 14 (currently amended): A method for reproducing operation information of at least one operator control from a memory in association synchronously with video or music reproduced by a reproduction device, said memory storing operation data, indicative of an operational state to be taken by said operatoroperation of said at least one operator control, along with time information indicative of a reproducing time timing when the operation data is to be reproduced, said method comprising:

a step of generating a first time code sequentially varying over time;

a step of reading out, from said memory, given operation data for which the reproducing time timing has arrived, in accordance with a progression of said first time code, and outputting the operation data;

a step of receiving a second time code given by the reproduction device, in relation to of the video or music reproduced by the reproduction device, said second time code being of lower resolution than said first time code; and

a step of correcting a current value of said first time code, generated by said step of generating a first time code, on the basis ofcontrolling generation of said first time code by said step of generating a first time code, according to said second time code received by said step of receiving, to thereby provide a corrected first time code generate said first time code corrected on the basis of said second time code;

wherein said step of reading out reads out, from said memory, each operation data ~~for which the reproducing time has arrived~~when the time information of the operation data coincides with the corrected first time code, in accordance with a progression of the corrected first time code so that the operation data is reproduced from said memory ~~in association~~synchronously with the video or music reproduced by the reproduction device,

wherein step of controlling generation of said first time code corrects said first time code in correspondence with any one of a plurality of types of second time code of different resolution, and

wherein the resolution of said first time code is a common multiple of respective resolution of said plurality of types of second time code.

Claim 15 (currently amended): A method as claimed in claim 14 wherein respective ~~operational states~~positions of one or more ~~operators~~operator controls are capable of being automatically set, and

which further comprises a step of, when given operation data is read out from said memory, automatically setting a corresponding one of said ~~operators to an operational state~~operator controls to a position in accordance with the read-out operation data.

Claim 16 (currently amended): A method for generating a time code of a designated time resolution, said method comprising:

a step of generating a first time code of a predetermined time resolution in accordance with passage of time;

a step of designating a type of time code from among a plurality of types of time code of different time resolution;

a step of converting said first time code, generated by said step of generating, into a second time code having a time resolution of the designated type of time code; and

a step of retaining said second time code having the time resolution of the designated type in a register as a current value of the time code having the time resolution of the designated type, whereby the current value of the time code retained in the register is sequentially updated with said second time code having the time resolution of the designated type,

wherein the time code having the designated time resolution is retained in the register,

wherein a time resolution of said first time code is a common multiple of respective time resolution of said plurality of types of time code.

Claim 17 (currently amended) A ~~program containing a group of instructions~~computer-readable medium encoded with a computer program for causing a computer to perform a method for recording operation information, indicative of operation on an operator unit ~~including~~detecting ~~operation of~~one or more operators~~operator controls~~, into a memory ~~in association~~synchronously with video or music reproduced by a reproduction device, said method comprising:

a step of generating a first time code sequentially varying over time;

a step of generating operation data ~~by detecting an operational state~~indicative of the detected operations of each of said ~~operators~~operator controls on said operator unit;

a step of, in response to generation of the operation data by said step of generating operation data, causing said memory to store the generated operation data along with said first time code as time information of the operator data;

a step of receiving a second time code ~~given by the reproduction device, in relation to~~of the video or music reproduced by the reproduction device, said second time code being of lower resolution than said first time code; and

a step of ~~correcting a current value of said first time code, generated by said step of generating a first time code, on the basis of~~controlling generation of said first time code by said step of generating a first time code, according to said second time code received by said step of receiving, to generate said first time code corrected on the basis of said second time code,

wherein said step of controlling generation of said first time code corrects said first time code in correspondence with any one of a plurality of types of second time code of different resolution, and

wherein the resolution of said first time code is a common multiple of respective resolution of said plurality of types of second time code.

Claim 18 (currently amended): A ~~program containing a group of instructions~~computer-readable medium encoded with a computer program for causing a computer to perform a method for reproducing operation information of at least one operator control from a memory in associationsynchronously with video or music reproduced by a reproduction device, said memory storing operation data, indicative of an operational state to be taken byoperation of said at least one operator controlsaid operator, along with time information indicative of a reproducing timetiming when the operation data is to be reproduced, said method comprising:

- a step of generating a first time code sequentially varying over time;
- a step of reading out, from said memory, given operation data for which the reproducing timetiming has arrived, in accordance with a progression of said first time code, and outputting the operation data;
- a step of receiving a second time code given by the reproduction device, in relation toof the video or music reproduced by the reproduction device, said second time code being of lower resolution than said first time code; and
- a step of correcting a current value of said first time code, generated by said step of generating a first time code, on the basis ofcontrolling generation of said first time code by said step of generating a first time code, according to said second time code received by said step of receiving, to thereby provide a corrected first time codegenerate said first time code corrected on the basis of said second time code;

wherein said step of reading out reads out, from said memory, each operation data ~~for which the reproducing time has arrived~~when the time information of the operation data coincides with the corrected first time code, in accordance with a progression of the corrected first time code so that the operation data is reproduced from said memory ~~in association~~synchronously with the video or music reproduced by the reproduction device,

wherein step of controlling generation of said first time code corrects said first time code in correspondence with any one of a plurality of types of second time code of different resolution, and

wherein the resolution of said first time code is a common multiple of respective resolution of said plurality of types of second time code.

Claim 19 (currently amended): A ~~program~~ computer-readable medium as claimed in claim 18 wherein respective ~~operational states~~positions of the one or more ~~operators~~operator controls are capable of being automatically set, and

which further comprises a step of, when operation data is read out from said memory, automatically setting a corresponding one of said ~~operators to an operational state~~operator controls to a position in accordance with the read-out operation data.

Claim 20 (currently amended): A ~~program containing a group of instructions~~ computer-readable medium encoded with a computer program for causing a computer to perform a method for generating a time code of a designated time resolution, said method comprising:

a step of generating a first time code of a predetermined time resolution in accordance with passage of time;

a step of designating a type of time code from among a plurality of types of time code of different time resolution;

a step of converting said first time code, generated by said step of generating, into a second time code having a time resolution of the designated type of time code; and

a step of retaining said second time code having the time resolution of the designated type in a register as a current value of the time code of the time resolution of the designated type, whereby the current value of the time code retained in the register is sequentially updated with said second time code having the time resolution of the designated type,

wherein the time code of the designated time resolution is retained in the register, and

wherein a time resolution of said first time code is a common multiple of respective time resolution of said plurality of types of time code.